General and Comparative Endocrinology

205

An International Journal

Editors-in-Chief
AUBREY GORBMAN
J. M. DODD

Published under the Auspices of the Division of Comparative Endocrinology of the American Society of Zoologists, and the European Society for Comparative Endocrinology

> Volume 34 1978



Copyright © 1978 by Academic Press, Inc.

All Rights Reserved

No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without permission in writing from the copyright owner.

The appearance of the code at the bottom of the first page of an article in this journal indicates the copyright owner's consent that copies of the article may be made for personal or internal use, or for the personal or internal use of specific clients. This consent is given on the condition, however, that the copier pay the stated per copy fee through the Copyright Clearance Center, Inc. (Operations Staff, P.O. Box 765, Schenectady, New York 12301), for copying beyond that permitted by Sections 107 or 108 of the U.S. Copyright Law. This consent does not extend to other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works, or for resale. Copy fees for pre-1978 articles are the same as those shown for current articles.

Contents of Volume 34

Number 1, January 1978

HISAAKI IWASAWA. Spermatogonial Responsiveness to Mammalian Gonadotropins in Subadult Rana nigromaculata	1
D. E. KIME. Steroid Biosynthesis by the Testes of the Dogfish Scyliorhinus caniculus	6
GLORIA V. CALLARD, ZOLTAN PETRO, AND KENNETH J. RYAN. Androgen Metabolism in the Brain and Non-Neural Tissues of the Bullfrog Rana catesbeiana	18
MELVIN WEISBART, JOHN H. YOUSON, AND JOHN P. WIEBE. Biochemical, Histochemical, and Ultrastructural Analyses of Presumed Steroid-Producing Tistochemical, and Ultrastructural Analyses of Presumed Steroid-Producing Tistochemical, M. M. C. J. J. W. G. J. J. W. G. J. J. W. G. J. W. W. G. J. W. W. G. J. W. W. G. J. W. W. W. G. J. W. W. G. J. W.	
sues in the Sexually Mature Sea Lamprey, Petromyzon marinus L BANDANA GUHA AND ASOK GHOSH. A Cytomorphological Study of the Endocrine Pancreas of Some Indian Birds	26 38
C. G. Scanes, A. Chadwick, P. J. Sharp, and N. J. Bolton. Diurnal Variation in Plasma Luteinizing Hormone Levels in the Domestic Fowl (Gallus domes-	
ticus)	45 50
Republic of Germany	63
ELIZABETH A. HEWS AND D. E. KIME. Formation of Testosterone Glucuronide by Testes of the Rainbow Trout Salmo gairdneri	116
Erratum	120
Number 2, February 1978	
NAOKUNI TAKEDA. Hormonal Control of Prepupal Diapause in Monema flaves-	123
Cens (Lepidoptera)	132
RUSSELL T. TURNER AND LEONARD P. ELIEL. Nuclear Estrogen Receptor in the	141
Reproductive Tract of Laying Japanese Quail	141
Heteropneustes fossilis (Bloch)	149
Trout, Salmo gairdneri, after Hypophysectomy and Somatotropin Therapy P. D. PEZALLA, W. CRAIG CLARKE, M. LIS, N. G. SEIDAH, AND M. CRÉTIEN. Im-	158
munological Characterization of β-Lipotropin Fragments (Endorphin, β-MSH, and N-Fragment) from Fish Pituitaries	163
BERT. Changes in Ecdysone Content during Postembryonic Development of the Wax Moth, <i>Galleria mellonella</i> : The Role of the Ovary	169
NIKOLAI KLEMM AND BENGT FALCK. Monoamines in the Pars Intercerebralis— Corpus Cardiacum Complex of Locusts	180

ROBERT C. THOMMES AND VINCENT W. HYLKA. Hypothalamo-Adeno-hypophyseal-Thyroid Interrelationships in the Chick Embryo. I. TRH and	102
TSH Sensitivity	193
on Structure and Function of Testis in Adult Toads, <i>Bujo bujo (E.).</i> ANDERS ENEMAR. Adenohypophysis and Growth in Tadpoles of <i>Rana tem</i> -	201
C. G. H. Steel Some Functions of Identified Neurosecretory Cells in the Brain of	211
the Aphid, Megoura viciae. YUICHI SASAYAMA. Effects of Implantation of the Ultimobranchial Glands and the Administration of Synthetic Salmon Calcitonin on Serum Ca Concentrations	219
in Ultimobranchialectomized Bullfrog Tadpoles. DAVID B. KING AND CHRISTINE R. KING. Muscle Growth and Development in Chick Embryos—Thyroidal Influence on Ribosomal RNA Metabolism	234
Notes J. C. Murat, C. Castilla, and H. Paris. Inhibition of Gluconeogenesis and Glucagon-Induced Hyperglycemia in Carp (Cyprinus carpio L.) Valdo Mazzi. Effects on Spermatogenesis of Permanent Lesions to the Ros-	243
tral Preoptic Area in the Crested Newt (<i>Triturus cristatus carnifex</i> Laur.). Fred E. Wilson and Brian K. Follet. Dissimilar Effects of Hemicastra-	247
tion on Plasma LH and FSH in Photostimulated Tree Sparrows (Spizella arborea)	251 256
Number 3, March 1978	
Frank L. Moore, Jennifer L. Specker, and Lloyd Swanson. Effects of Testosterone and Methallibure on Courtship and Plasma Androgen Concentrations of Male Newts, <i>Taricha granulosa</i>	259
Electrolytes of Gasterosteus aculeatus BARBARA STAY AND STEPHEN S. TOBE. Control of Juvenile Hormone Biosynthesis during the Reproductive Cycle of a Viviparous Cockroach. II. Effects of Unilateral Allatectomy, Implantation of Supernumerary Corpora Allata, and	265
Odle Mulner, Catherine Thibier, and René Ozon. Steroid Biosynthesis by	276
Ovarian Follicles of <i>Xenopus laevis in Vitro</i> during Oogenesis P. J. Sharp, C. G. Scanes, and A. B. Gilbert. <i>In Vivo</i> Effects of an Antiserum to	287
Partially Purified Chicken Luteinizing Hormone (CM2) in Laying Hens M. Arslan, P. Zaidi, J. Lobo, A. A. Zaidi, and M. H. Qazi. Steroid Levels in	296
Preovulatory and Gravid Lizards (<i>Uromastix hardwicki</i>) Valentine Lance and Ian P. Callard. Steroidogenesis by Enzyme-Dispersed Turtle (<i>Chrysemys picta</i>) Ovarian Cells in Response to Ovine Gonadotropins	300
(FSH and LH). H. COFFIGNY AND JP. DUPOUY. The Fetal Adrenals of the Rat: Correlations between Growth, Cytology, and Hormonal Activity, with and without ACTH	304
J. D. May. Effect of Fasting on T ₃ and T ₄ Concentrations in Chicken Serum.	312 323

Rainer Keller and Gert Wunderer. Purification and Amino Acid Composition of the Neurosecretory Hyperglycemic Hormone from the Sinus Gland of the Shore Crab, <i>Carcinus maenas</i> . E. R. Kühn and E. J. Nouwen. Serum Levels of Triiodothyronine and Thyroxine in the Domestic Fowl following Mild Cold Exposure and Injection of	328
Synthetic Thyrotropin-Releasing Hormone HIROSE YAMAUCHI, MITSUYOSHI MATSUO, AKIKO YOSHIDA, AND HAJIME ORIMO. Effect of Eel Calcitonin on Serum Electrolytes in the Eel Anguilla	336
Japonica	343
sion. J. M. Vernier et M. F. Sire. Etude "in Vitro" de la Glycogène Phosphorylase Hépatique de la Truite Arc-en-ciel Son Contrôle par le Glucose, les Cor-	347
ticoïdes, l'Adrénaline, et le Glucagon J. M. Vernier et M. F. Sire. Etude "in Vivo" des Effets de l'Adrénaline, des Glucorticoides et du Jeûne sur les Activités de la Glycogène Phosphorylase, de la Glucose-6-Phosphatase et sur la Teneur en Glycogène du Foie de la Truite	360
Arc-en-Ciel	370
H. KLANDORF, P. J. SHARP, AND R. STERLING. Induction of Thyroxine and Triiodothyronine Release by Thyrotrophin-Releasing Hormone in the Hen. ANNOUNCEMENT.	377 380
No	
Number 4, April 1978	
Englis Divivis Lyn Engry in Hilliam A Commentage of Seesangl Changes in the	
EDGAR PAULKE AND EBERHARD HAASE. A Comparison of Seasonal Changes in the Concentrations of Androgens in the Peripheral Blood of Wild and Domestic Ducks	381
Hubert Vaudry, Charles Oliver, Sylvie Jegou, François Leboulenger, Marie-Christine Tonon, Catherine Delarue, Jean-Paul Morin, and Réne Vaillant. Immunoreactive Melanocyte-Stimulating Hormone (α-MSH)	201
in the Brain of the Frog (Rana esculenta L.) M. JIBSON AND F. TALAMANTES. Biological and Chemical Properties of Chinchilla Pituitary Prolactin	391 402
T. Bun Ng and David R. Idler. "Big" and "Little" Forms of Plaice Vitellogenic and Maturational Hormones	408
WILLIAM D. McCumbee and Robert L. Hazelwood. Sensitivity of Chicken and Rat Adipocytes and Hepatocytes to Isologous and Heterologous Pancreatic Hormones	421
IRIS E. O'NEILL AND DEREK R. LANGSLOW. The Action of Hydrocortisone, Insulin, and Glucagon on Chicken Liver Hexokinase and Glucose-6-Phosphatase and	
on the Plasma Glucose and Free Fatty Acid Concentrations	428
Metamorphosis	438
Catecholamines in Elasmobranch Fish	447

WILLIAM A. GERN, DAVID W. OWENS, AND CHARLES L. RALPH. Plasma Melatonin	
in the Trout: Day-Night Change Demonstrated by Radioimmunoassay	453
DAVID W OWENS WILLIAM A. GERN, CHARLES L. RALPH AND THOMAS J.	
BOARDMAN. Nonrelationship between Plasma Melatonin and Background	
Adaptation in the Rainbow Trout (Salmo gairdneri)	459
COLIN R. STOREY AND TREVOR J. NICHOLLS. Failure of Exogenous Melatonin to	
Influence the Maintenance or Dissipation of Photorefractoriness in the Canary,	
Serinus canarius	468
Serinus canarius	
FRED W. TUREK AND ALBERT WOLFSON. Lack of an Effect of Melatonin Treatment	
via Silastic Capsules on Photic-Induced Gonadal Growth and the Photorefrac-	471
tory Condition in White-Throated Sparrows	471
DAVID G. BUTLER, JOHN X. WILSON, AND JOHN H. YOUSON. Transformation of	
Corticosterone to 11-Dehydrocorticosterone by Nasal, Harderian, and Lac-	
rymal Glands of the Domestic Duck (Anas platyrhynchos) in Vitro	475
Author Index for Volume 34	480
AUTHOR INDEX FOR VOLUME 34	.00

The Subject Index for Volume 34 will appear in the December 1978 issue as part of a cumulative index for the year 1978.